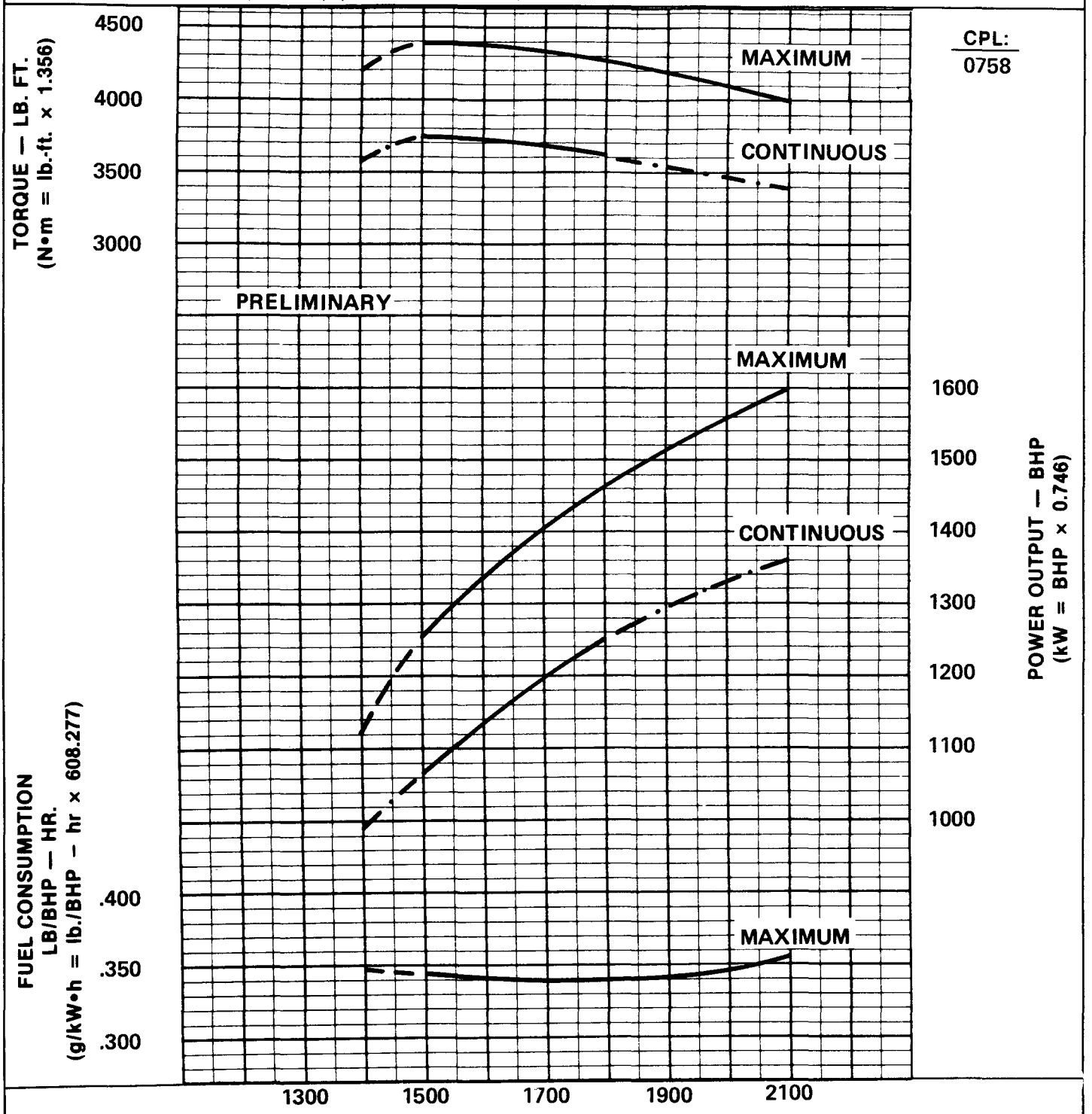
CUMMINS ENGINE COMPANY, INC. Columbus, Indiana 47201 ENGINE PERFORMANCE CURVE	ENGINE MODEL: KTA50–C	CURVE NUMBER: P–4356	
	ASPIRATION: TURBOCHARGED & AFTERCOOLED	DATE: 7/18/86	BY: E.E.M.

DISPLACEMENT: 3067 in³ (50.3 litre) NO. OF CYLINDERS: 16

BORE: 6.25 in. (159 mm) STROKE: 6.25 in. (159 mm)

RATING:
HP (kW) @ RPM
1600 (1194) @ 2100

All data is based on the engine operating with fuel system, water pump, lubricating oil pump, air cleaner, and muffler; not included are alternator, compressor, fan, optional equipment and driven components.



Curves shown above represent gross engine performance capabilities obtained and corrected in accordance with SAE J1349 conditions of 29.61 in. Hg (100 kPa) barometric pressure [300 ft. (90 m) altitude], 77°F (25°C) inlet air temperature, and 0.30 in. Hg (1 kPa) water vapor pressure with No. 2 diesel fuel. The engine may be operated without changing the fuel setting up to 7500 ft. (2200 m) altitude. For sustained operation at high load factors at higher altitudes, the fuel rate of the engine should be adjusted to limit performance by 4% per 1,000 ft. (300 m) above 7500 ft. (2200 m) altitude. The engine altitude capability is based upon an inlet temperature representative of the ambient temperature for that altitude.

See reverse side for application rating guidelines.

STANDARDS DEPT.

RATING GUIDELINES

These guidelines are intended for general purpose use in applications requiring high utilization with long periods between overhauls.

1. LOAD RATINGS

1.1 *Maximum Rating may be used for intermittent load applications (full throttle operation is cyclically interrupted) where the average load factor does not exceed the continuous rating, and where full throttle operation does not exceed 60 minutes without interruption.

1.2 *Continuous Rating may be used for constant load applications requiring uninterrupted service at full throttle for extended periods of time.

2. SPEED RATINGS

2.1 If the application qualifies for the continuous load rating the governor cut-in point shall be set within the limits of the solid line portion of the continuous curve.

2.2 If the application qualifies for the maximum load rating the governor cut-in point shall be set within the limits of the solid line portion of the maximum curve.

3. DEFINITIONS

3.1 Load (Speed) factor is defined as the arithmetic mean of the Load (Speed) profile of the normal duty cycle, not including prolonged periods of idle operation.

4. INTERNATIONAL RATING GUIDELINES

*These ratings represent gross engine performance capabilities obtained and corrected in accordance with SAE J1349 and the conditions as stated on front of the curve. The ratings are in conformance with the requirements specified in ISO 3046, BS5514 and DIN 6271. Although these specific standards have a note excluding road construction, earth moving equipment, agricultural tractors and Industrial trucks as applications not covered by the standard, these are included as acceptable applications of these ratings.

The Maximum Rating conforms to ISO 3046 overload power and fuel stop power. The Continuous Rating may be used for continuous service in commercial application and it conforms to ISO 3046 continuous power.

Reference standards

BS 5514 and DIN 6271 standards are based on ISO 3046.